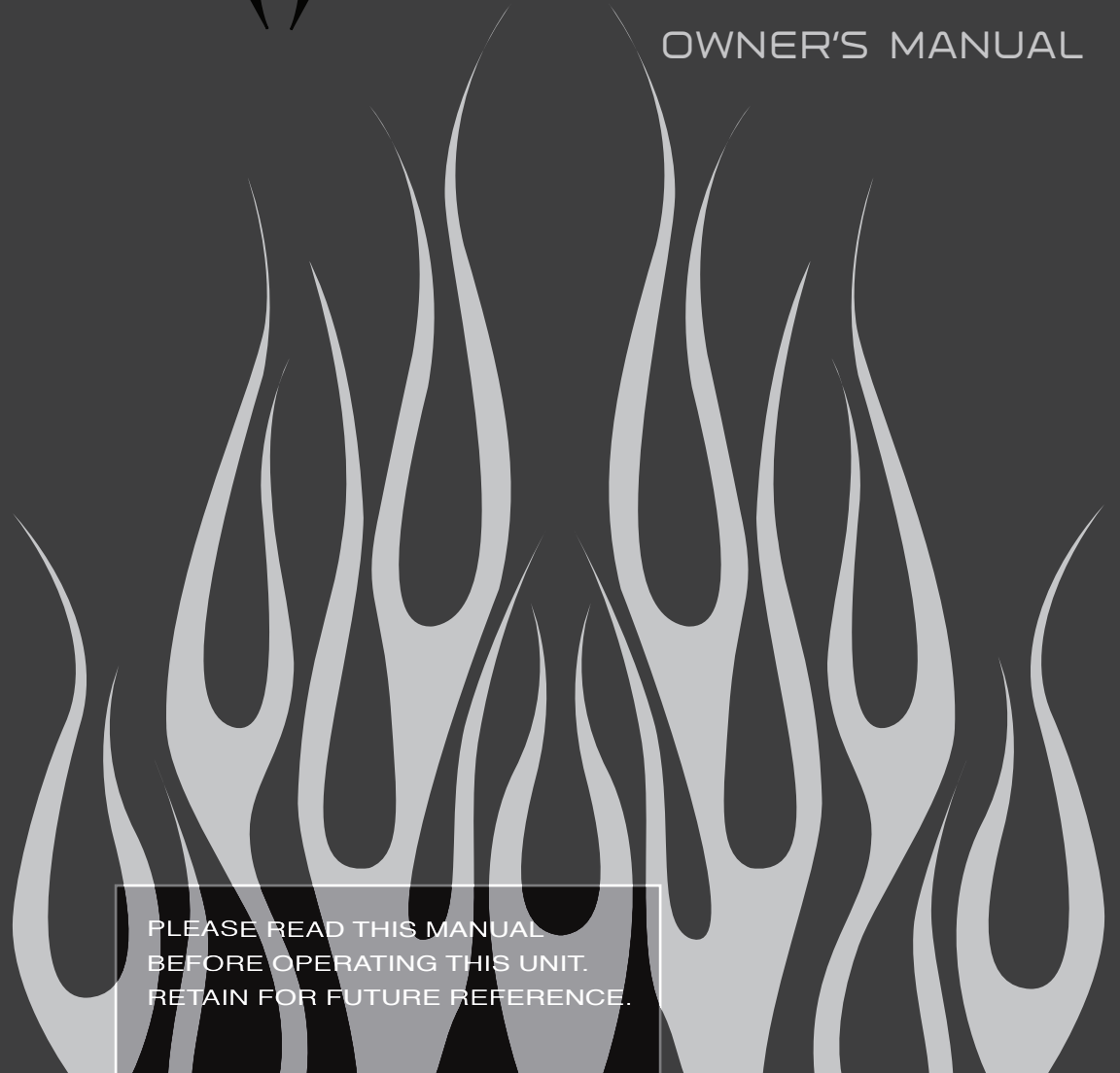
Murdered Out Series

By Audiobahn®

AMA12004H/AMA12004H
AMA6002H/AMA12002H/AMA24002H

OWNER'S MANUAL



PLEASE READ THIS MANUAL
BEFORE OPERATING THIS UNIT.
RETAIN FOR FUTURE REFERENCE.

The Audiobahn Way

To bring the product to market that excites the consumer through sound and vision from an orientation of integrity and customer service. We make you look as good as you sound. We strive to take car audio to an extreme the world has never seen, and a world that never stops evolving.

Audiobahn was established in 1997 with one long-term goal in mind, “Build it Bigger, Badder, & Better, and the people will take notice!” We back this statement with an engineering team that has brought home several Innovations, Design & Engineering Showcase Awards, and a marketing team from around the world that spends countless hours developing our no compromise products to satisfy the most discriminating enthusiasts.

Our global manufacturing facilities feature ISO9002 ratings (the highest level of quality control awarded in the electronics manufacturing industry), fully robotic assembly lines and a state of the art, California based R & D laboratory.

Our Technical Department and entire staff look to strive above and beyond the rest of the pack by going that extra mile to help you out. Whether you happen to be a veteran competitor, or a beginner car audio enthusiast who does not know a voice coil from a spider. We are all her to help you get the best system you can with what you have.

Judge for yourself, and remember what it’s all about, “If it’s not Bigger, Badder & Better, it’s not Audiobahn.” If audio is your life, Audiobahn is the brand for you! We make you look as good as you sound. People never stop trying to get the best product, so we will never stop making it.

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Dear Customer,

Congratulations on your purchase of the worlds finest brand of car audio products. Here at Audiobahn Inc. we are devoted to making our musical reproduction the vert best, and we are pleased you have chosen our product. Through years of engineering expertise, hand craftsmanship, and critical testing procedures, we have created a wide range of products that reproduce music with all the clarity and richness you deserve.

For maximum performance we recommend you have your Audiobahn product installed by an Authorized Audiobahn Dealer, as we provide specialized training through our Audiobahn Installer Training Programs. Please read your warranty, keep your receipt, and original carton for possible future use.

To get a free brochure on Audiobahn products in the US call (714) 452-1476 or e-mail us at sales@audiobahn.com.

WARNING

Continuous exposure to sound pressure levels over 100dB may cause permanent hearing loss. High powered autosound systems may produce sound pressure levels well over 135dB. Need we say more! Use common sense.

If after reading this manual you still have questions regarding your product, we recommend that you see your nearest Audiobahn Dealer. A list of Authorized Audiobahn Dealers can be found on our web page. If you need further assistance, feel free to call us at (714) 452-1476 and ask for the Technical Department. Be sure to have the model number, date of purchase, and invoice number available when you call.

The model number can be located on the outside of the carton. Record this in the space provided below along with the date of purchase. It is a good idea to keep your receipt with this as you will need it in the case of needing a warranty, repair service or exchange.

Date of Purchase: _____Model Number:_____

FEATURES

- Class A/B MOSFET Power Amplifier
- 2 Ohm stable
- MOSFET High Speed Switching Power Supply
- RCA (Low Level) Inputs
- Bridgeable
- Input Sensitivity: 200mV - 8V
- Optional Item: Bass Boost Control
- 4-Way Protection Circuitry: Thermal, Short Circuit, Overload, & DC Offset
- Variable High Pass Filter: 50Hz - 750Hz
- Variable Low Pass Filter: 50Hz - 120Hz
- Sub Sonic Control: 20Hz - 50Hz
- Bass Boost Control: 18dB
- Variable Bass Control remote: 0dB - 18dB
- Phase Shift Switch: 0º - 180º

RECOMMENDED FUSE SIZE

(AMA6002H: 20 x 1) (AMA12002H: 20 x 2) (AMA24002H: 30 x 2) (AMA12004H: 20 x 2) (AMA24004H: 30 x 2)

POWER OUTPUT

AMA6002H:

600 Watts Achievable Power
75 x 2 @ 4 Ohms RMS
150 x 2 @ 2 Ohms RMS
300 x 1 @ 4 Ohms RMS

AMA12002H:

1200 Watts Achievable Power
150 x 2 @ 4 Ohms RMS
300 x 2 @ 2 Ohms RMS
600 x 1 @ 4 Ohms RMS

AMA24002H:

2400 Watts Achievable Power
300 x 2 @ 4 Ohms RMS
600 x 2 @ 2 Ohms RMS
1200 x 1 @ 4 Ohms RMS

AMA12004H:

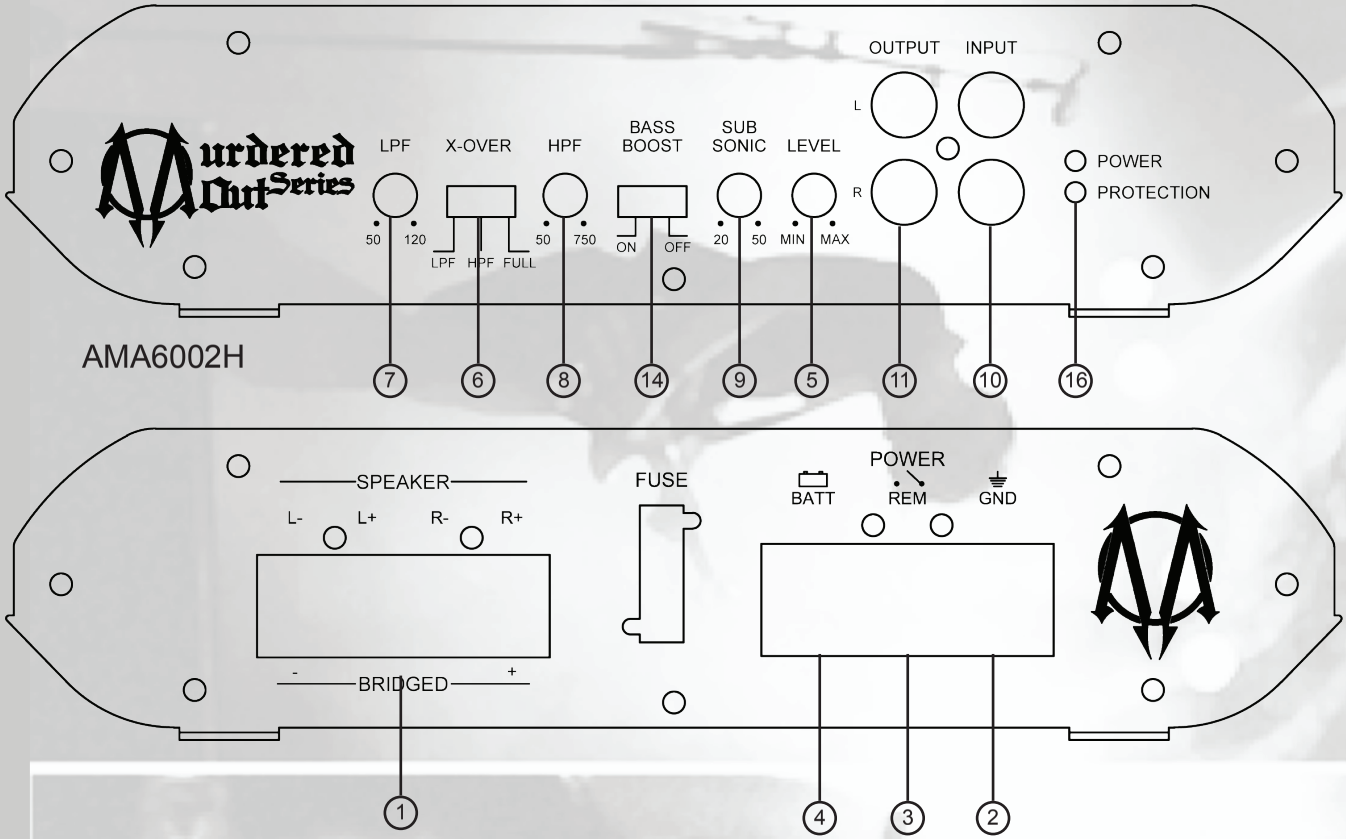
1200 Watts Achievable Power
75 x 4 @ 4 Ohms RMS
150 x 4 @ 2 Ohms RMS
300 x 2 @ 4 Ohms RMS

AMA24004H:

2400 Watts Achievable Power
150 x 4 @ 4 Ohms RMS
300 x 4 @ 2 Ohms RMS
600 x 2 @ 4 Ohms RMS

DIMENSIONS

AMA6002H (W x H x D):	8.95” x 8.48” x 2.64”	227.5 x 215.5 x 67mm
AMA12002H (W x H x D):	8.95” x 8.48” x 2.64”	227.5 x 215.5 x 67mm
AMA24002H (W x H x D):	11.57” x 8.48” x 2.64”	294 x 215.5 x 67mm
AMA12004H (W x H x D):	12.09” x 8.48” x 2.64”	307 x 215.5 x 67mm
AMA24004H (W x H x D):	12.09” x 8.48” x 2.64”	307 x 215.5 x 67mm


Murdered Out Series
LPF
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HPF
BASS BOOST
SUB SONIC
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INPUT
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AMA6002H
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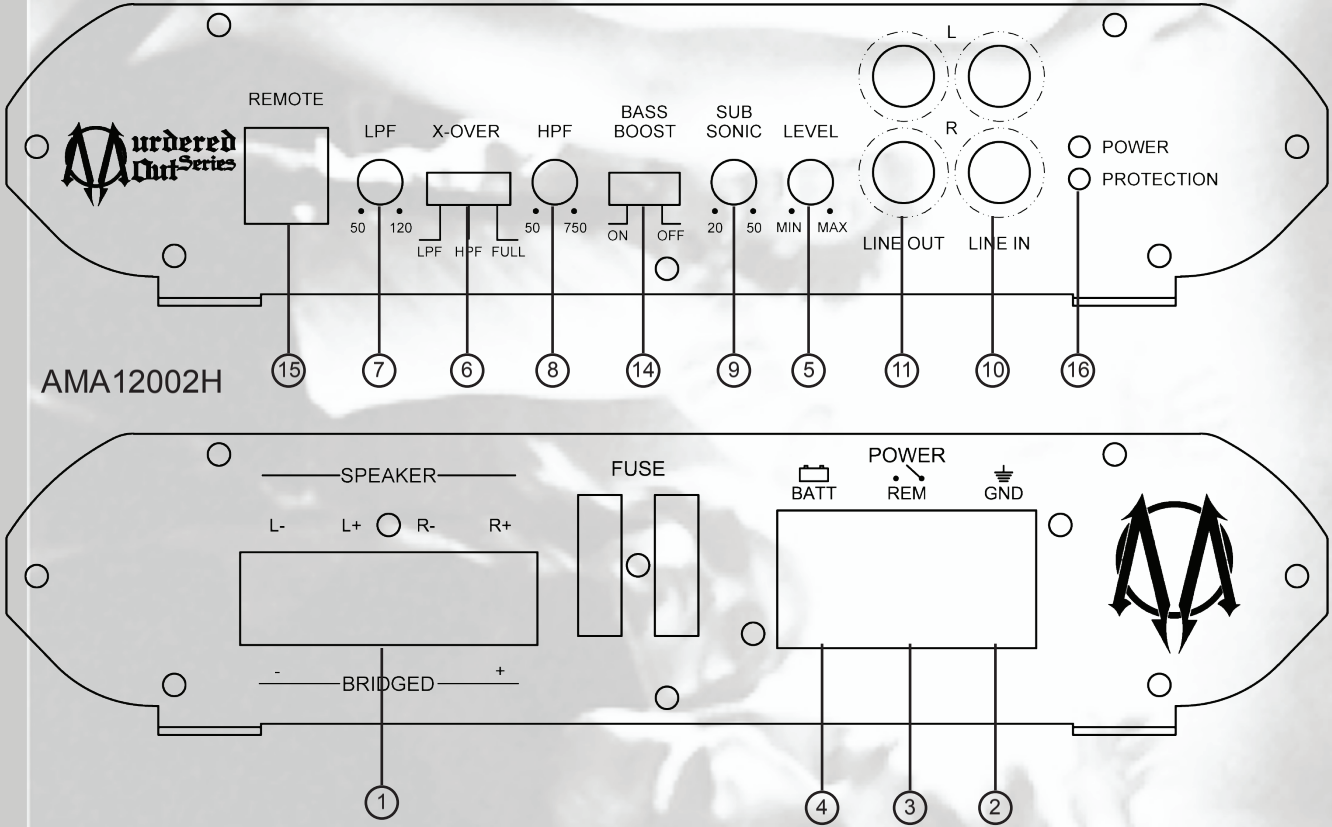
REMOTE
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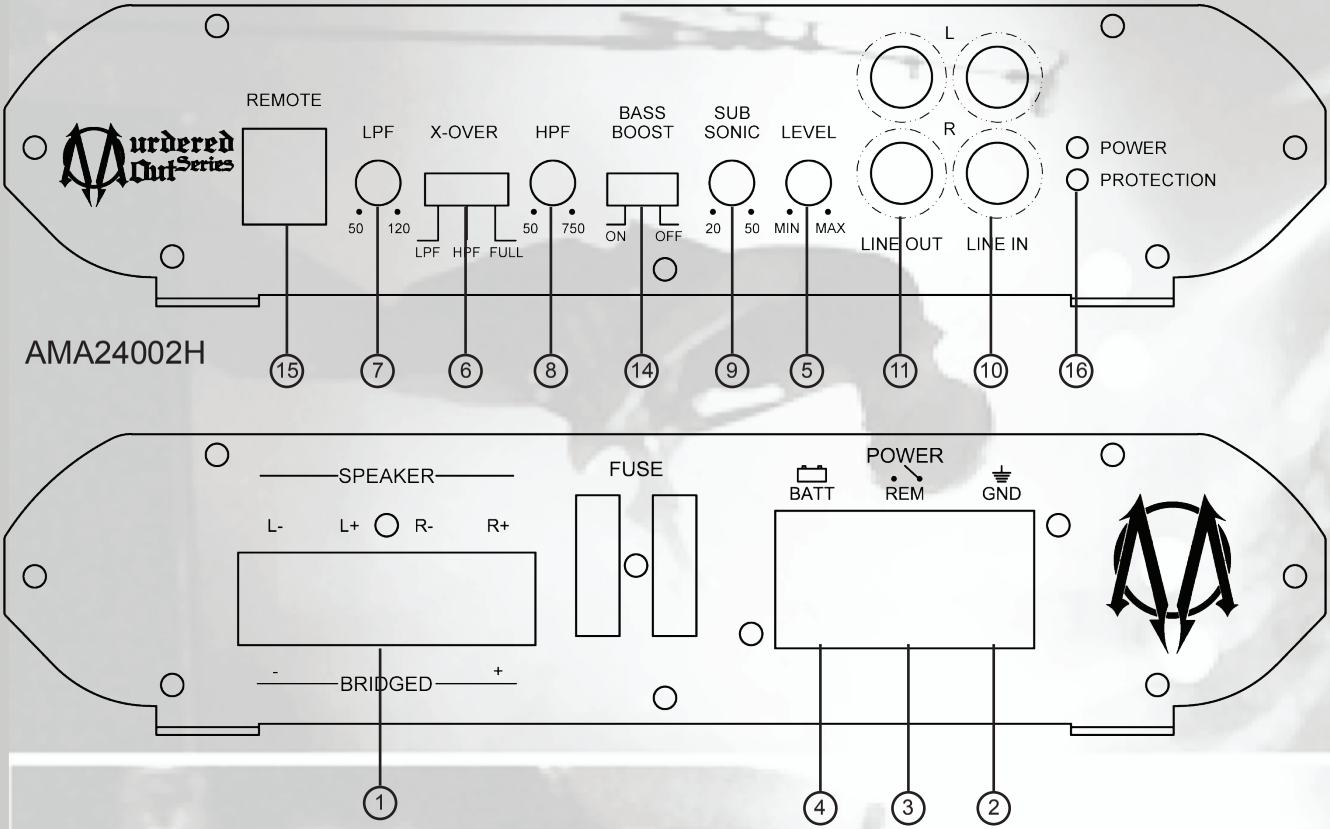
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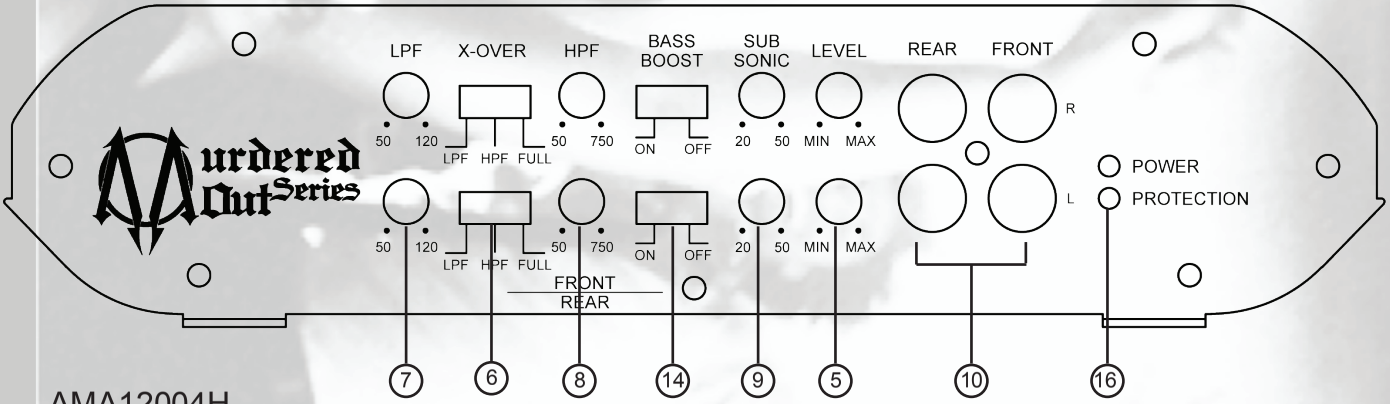
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BASS BOOST
SUB SONIC
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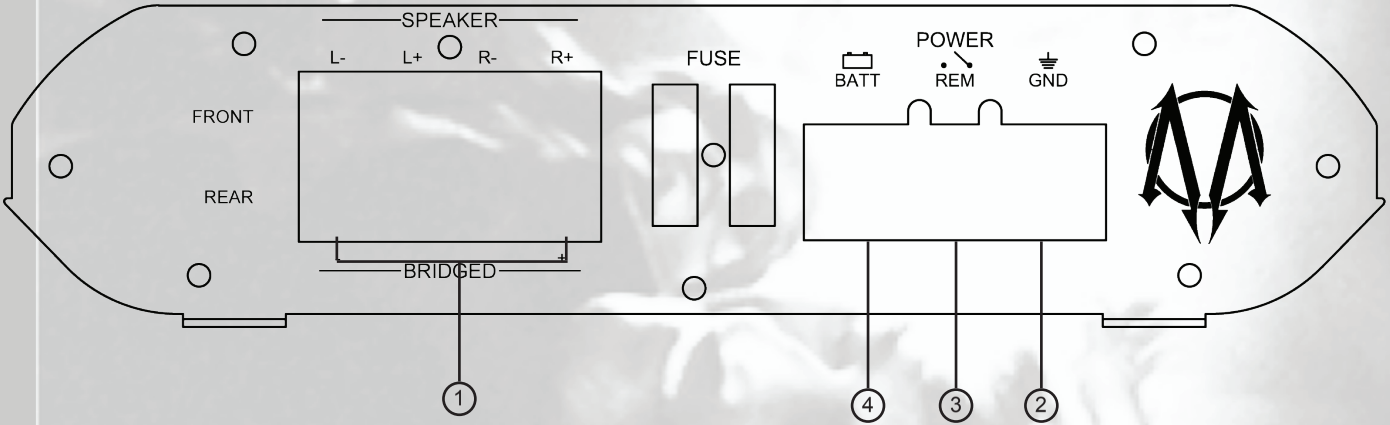
AMA12004H


SPEAKER
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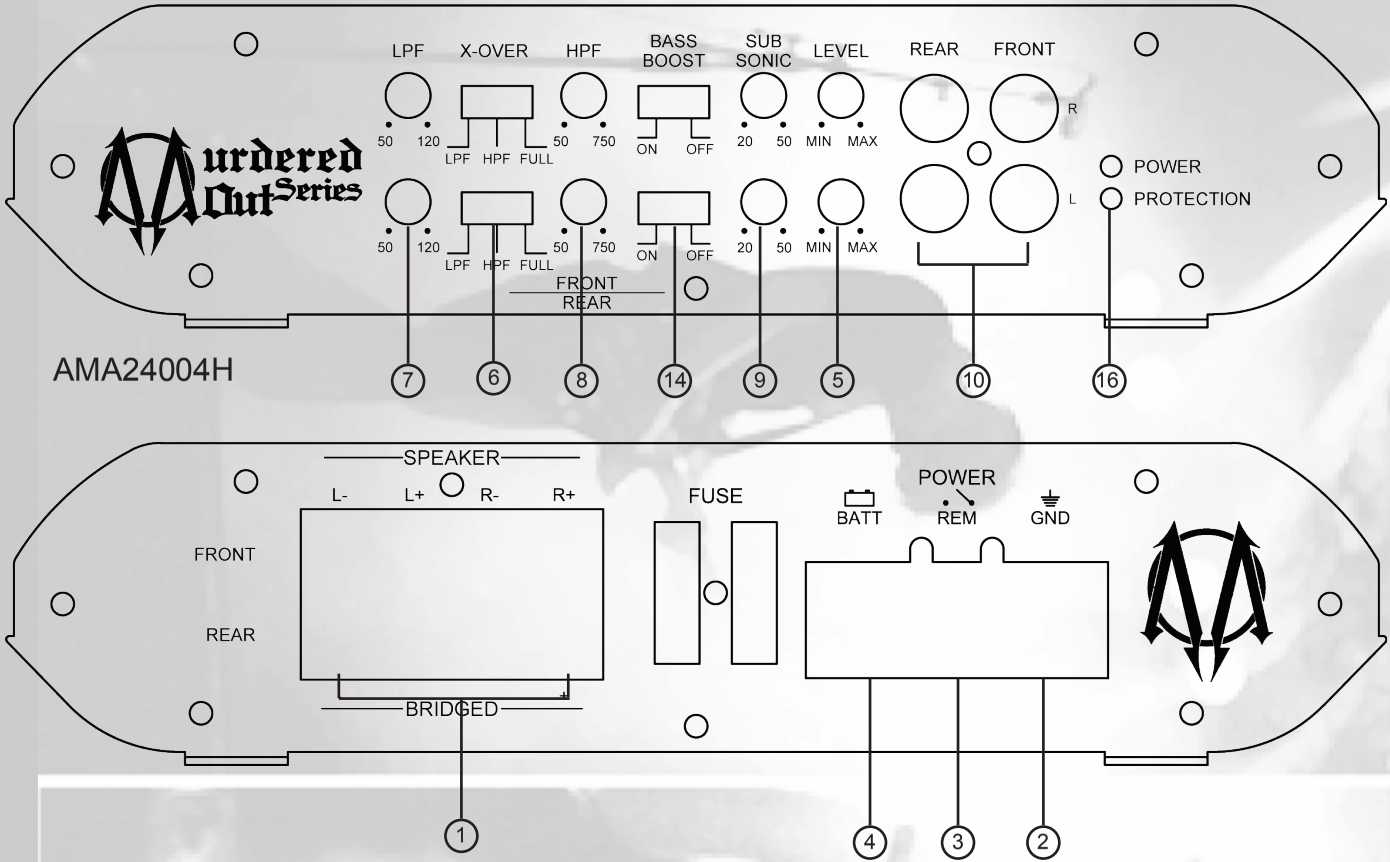
LPF
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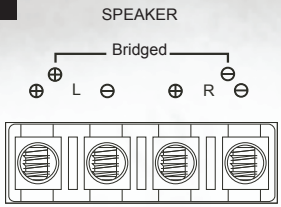
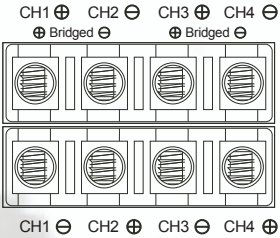
1. Speaker Terminals



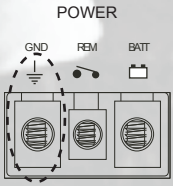
AMA6002H
AMA12002H
AMA24002H



AMA12004H
AMA24004H

These chrome plated connectors can accept from 16 to 8 gauge wire. Be careful to observe proper polarity when connecting the cables

2. B - Terminal (Chassis ground)

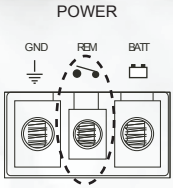


AMA6002H
AMA12002H
AMA24002H
AMA12004H
AMA24004H

To avoid unwanted ignition noise caused by ground loops, it is essential that the amplifier be grounded to a clean, bare, metal surface of the vehicles chassis.

Note: GROUND WIRE SHOULD NOT BE EXTENDED MORE THAN 3 FT. (1 METER)

3. Remote Turn-On Input

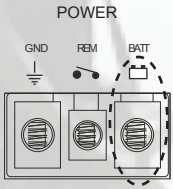


AMA6002H
AMA12002H
AMA24002H
AMA12004H
AMA24004H

To remote or power antenna output of car stereo. This amplifier is turned "ON" remotely when the vehicle's stereo is turned "ON".

Note: IF YOUR RADIO DOES NOT HAVE +12 VOLT OUTPUT LEAD WHEN THE RADIO IS TURNED ON, THE "REMOTE" TERMINAL ON THE AMPLIFIER CAN BE CONNECTED TO THE VEHICLE'S ACCESSORY CIRCUIT THAT IS LIVE WHEN THE KEY (IGNITION) IS "ON".

4. B+ Terminal (Battery Positive)



AMA6002H
AMA12002H
AMA24002H
AMA12004H
AMA24004H

Due to the power requirements of the amplifier, this connection should be made directly to the positive (+) terminal of the battery. For a safety measure, install an in-line fuse holder (not included) as close to the battery positive (+) as possible with an apmere rating not to exceed the total value of fuses in the amp.

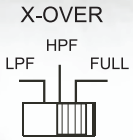
5. Input Sensitivity Adjustment

AMA6002H
AMA12002H
AMA24002H

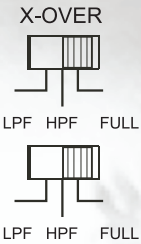
AMA12004H
AMA24004H

This control adjusts the amplifier's sensitivity to match the signal strength coming from the source unit. Input sensitivity is variable from 200 Millivolts to 8 volts. Clockwise increases sensitivity. Counterclockwise decreases sensitivity. **THE KNOB IS NOT A VOLUME CONTROL**. A lower signal level will require increased sensitivity for full power. A higher signal will require decreased sensitivity.

6. X-OVER (Crossover) Control



AMA6002H
AMA12002H
AMA24002H



AMA12004H
AMA24004H

Adjust the crossover for your chosen installation method.
-- LPF: (Low-pass filter) Only bass tones go to the speakers. Use with woofer or sub woofer.
-- FULL: (No filter) All tones go to speakers. Use with full-range speakers or with external crossovers.
-- HPF: (High-pass filter) Blocks very low tones from speakers. Use with tweeters or full-range to eliminate bass tones

7. Variable Low-Pass Filter 50Hz-120Hz

AMA6002H
AMA12002H
AMA24002H

AMA12004H
AMA24004H

Variable Low-Pass Filter (50Hz-120Hz): For use as a dedicated subwoofer channel, set filter switch to "LPF". Adjust variable crossover frequency with control as desired. The amplifier input circuit filters out everything above 50Hz.....120Hz (dependant on the adjustment of the frequency control), so only the deepest bass notes are amplified.

8. Variable High-Pass Filter 50Hz-750Hz

AMA6002H
AMA12002H
AMA24002H

AMA12004H
AMA24004H

Variable High-Pass Filter (50Hz-750Hz): For use as a dedicated mid high range channel, set filter switch to "HPF". The input circuit filters out all frequencies below 50Hz.....750Hz.

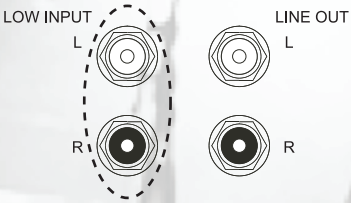
9. Subsonic

AMA6002H
AMA12002H
AMA24002H

AMA12004H
AMA24004H

Subsonic Variable: 20Hz - 50Hz

10. Low Level Input RCA Jacks



AMA6002H
AMA12002H
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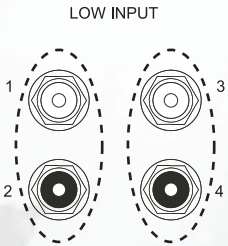
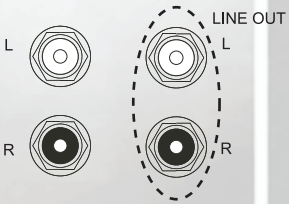


AMA12004H
AMA24004H

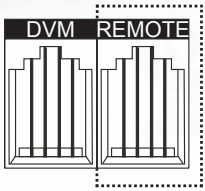
These inputs are for signal cables from the source unit or other processor. Always use high quality shielded RCA cables.

11. Low Level OUT RCA Jacks



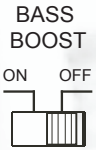
The LINE OUT allows you to build multiple amplifier systems without having to use splitter cords to distribute the signal. Now it is a simple matter of bridging one set of RCA cables into the first amplifier, then using the line out RCA jacks as the feed to the next amplifier.

12. Remote Bass Knob Port Fig 1

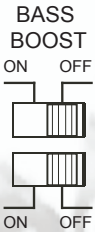


Bass Boost Control (MIN / MAX) : **Optional**

14. Bass Boost Switch



AMA6002H
AMA12002H
AMA24002H



AMA12004H
AMA24004H

Bass Boost Switch: ON and OFF

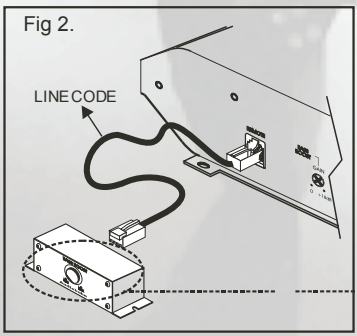
16. LED indicator (Status)

-PWR (Power) : This BLUE LED will illuminate when the amplifier is turned "ON". If it fails to illuminate, check the power connections to the amplifier and fuses.

- PROT (Protection) : The amplifier protection circuitry will disable the amplifier if input overload, short circuit, or extremely high temperature conditions are detected. When the protection mode is in operation, the LED indicator on the side panel will be illuminated, indicating the amplifier has gone into a self-preservation mode.

If you observe that the protection LED is lit, please check the system carefully to determine what has caused the protection circuit to engage. The amplifier shut down due to a thermal overload condition, please allow it to cool down before restarting. If the amplifier shut down because of an input overload or short circuit, be sure to repair these conditions before attempting to power up the amplifier again.

Fig 2.



Optional Remote Bass Boost Control

Planning Your System

Before beginning the installation, consider the following:

a. If you plan to expand your system by adding other components sometime in the future, ensure that adequate space is left, and cooling requirements are met. If your radio/source is equipped with Pre-Amp outputs, it is possible to utilize them to drive an Amplifier and connecting (Amplifier) to the 2 rear speakers. Then, use the built-in power of your radio to drive the 2 front speakers.

NOTE:
DISTORTION LEVEL IS CONSIDERABLY LOWER FROM PRE-AMP (LOW LEVEL) OUTPUTS, THAN SPEAKER (HIGH LEVEL) OUTPUTS.

b. Are your components matched? The RMS power rating of your speakers must be equal or greater than the Amplifier's. They also must be 1-8 Ohms impedance (this information is normally printed on the speaker magnet).

c. Consider both the length of your leads, and routing when determining the mounting location. Pre-Amp input Jacks require a length of high quality shielded male to male RCA patch cord.

Mounting Your System

The mounting position of your Amplifier will have great effect on its ability to dissipate the heat generated during normal operation. It has an ample heat sink for heat dissipation, and also is designed with a thermal shut-down (for heat protection) circuit, having enough air directed over the cooling fins will improve heat dissipation dramatically. DO NOT enclose the amplifier in a small box or cover it so that air can not flow around the fins. Temperatures in car trunks have been measured as high as (155˚F) in the summer time. Since the thermal shut-down point for the Amplifier is (158˚F) it is easy to see that it must be mounted for maximum cooling capability. To achieve the maximum advantage of convection air flow in an enclosed trunk, mount the amplifier in a horizontal position. Cooling requirements are considerably relaxed when mounting inside the passenger compartment since the driver will not allow temperatures to reach a critical point. Floor mounting under the seat is usually satisfactory as long as there is at least 1 inch (2.54cm) above the Amplifier's fins for ventilation.

a. Select a sutable location that is convenient for mounting, accessible for wiring and has ample room for air circulation and cooling.

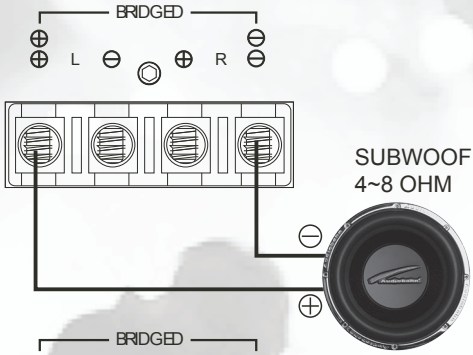
b. Use the amplifier as a template to mark the mounting holes. Remove the amplifier and drill holes. Use extreme caution. Inspect underneath the surfaces before drilling!

c. Secure the Amplifier using the screws provided.

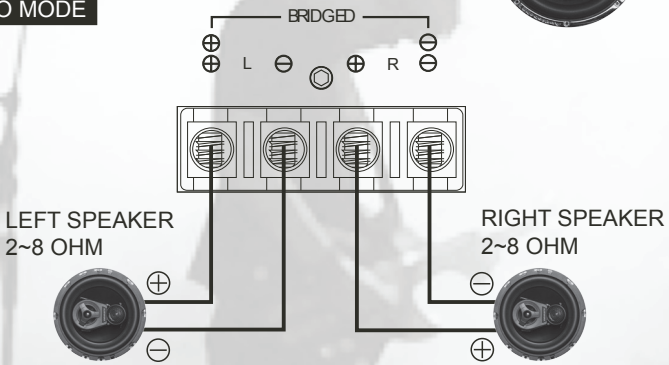
CAUTION: Before connecting any wires to the amplifier, disconnect the ground lead from the battery. Leave the ground lead disconnected until you are done wiring the amplifier.

AMA6002H / AMA12002H / AMA24002H

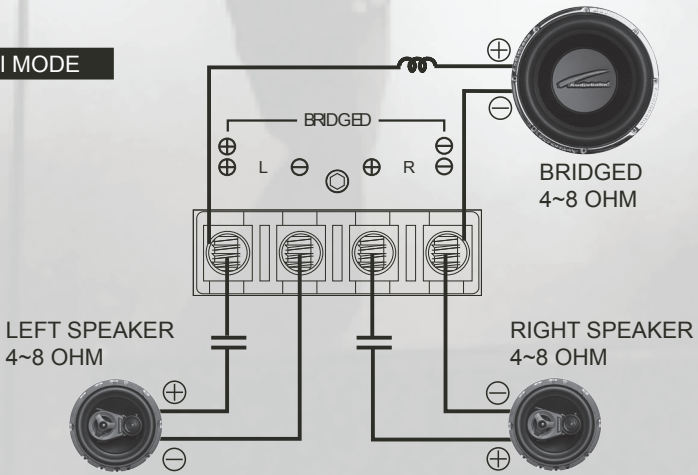
MONO MODE



STEREO MODE



TRI MODE

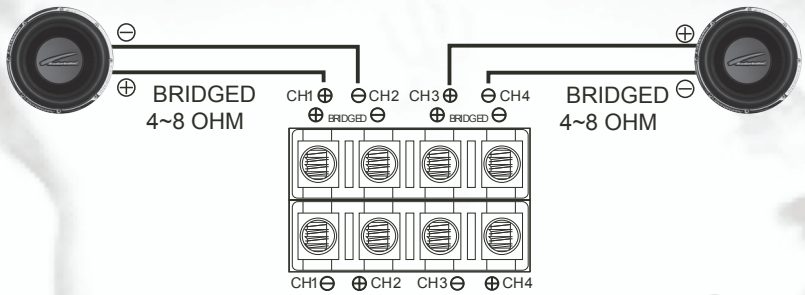


: INDUCTOR LOW PASS FILTER

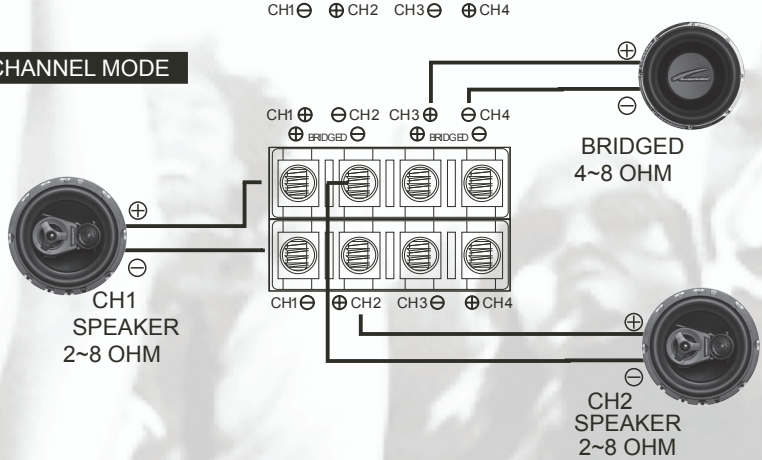
: CAPACITOR HIGH PASS FILTER

AMA12004H / AMA24004H

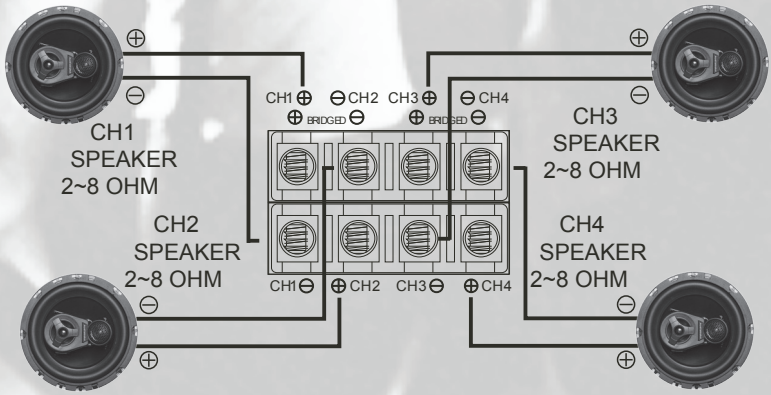
2 CHANNEL MODE



3 CHANNEL MODE

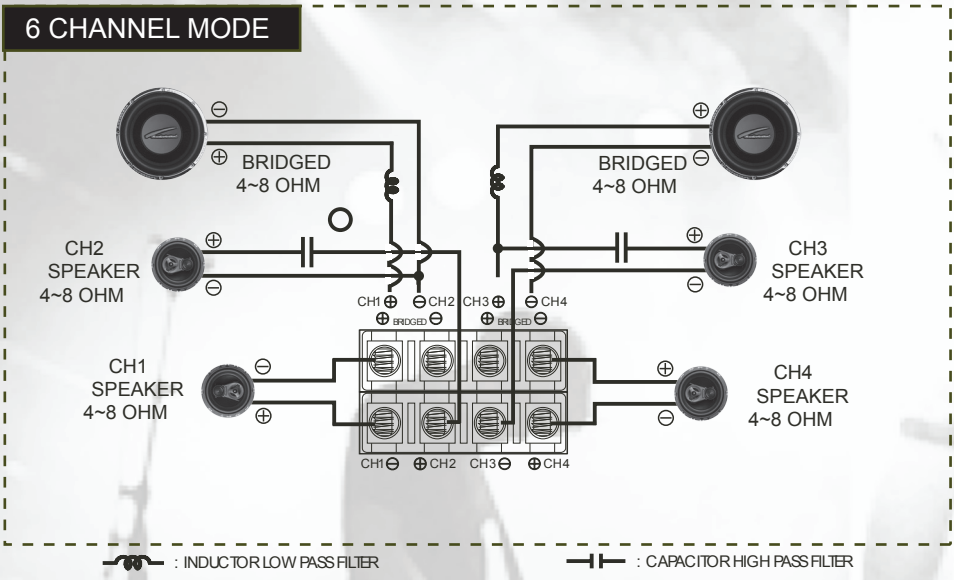


4 CHANNEL MODE



AMA12004H / AMA24004H

6 CHANNEL MODE



COMPONENT VALUES FOR 6 dB PASSIVE CROSSOVER

FREQUENCY	INDUCTOR	CAPASITOR
80Hz	7.5 mH	470uF
100Hz	6.5 mH	330uF
120Hz	5.5 mH	330uF
150Hz	4mH	220uF

Below you will find information on adjusting the amplifiers gains. Adjusting the gain correctly is essential to proper operation of the amplifier. **If the gain is not adjusted properly it can and will lead to damage of the amplifier and connected speakers and will void your MANUFACTURER WARRANTY.** The gain on an amplifier is not a volume control. It is a signal level setting that tells the amplifier how strong of a signal is coming from the head unit. Your amplifier has an input sensitivity of 200mV-8V. The minimum setting is 8V and the maximum setting is 200mV. Minimum meaning the head unit or processor has 8V output and the maximum meaning it has a 200mV output.

When using **Low-Level (RCA) inputs** you MUST know what the pre-out or line-out voltage of your head unit is rated in Volts. This is not the wattage rating. This can be found in the manual of the head unit or by contacting the manufacturer. If you are using a line-driver or another type of processor that adjusts the output voltage of the signal to the amplifier you will need to know what the output is adjusted to. The gain on the amplifier needs to be set proportionately to the pre-out or line-out voltage rating of the head unit or processor.

If the signal strength is 4V then the gain would be adjusted to about 45 - 50%. Below is a list of commonly found voltage ratings and their appropriate gain adjustments. When adjusting the gain you want to start with the bass boost setting on the amp set to minimum and bass adjustments on the head unit or processor are set at 0 or flat. As these other settings for bass adjustments are increased, the gain setting will need to be adjusted lower.

2V ≥ 70%
4V ≥ 45%
5V ≥ 32.%
8V ≥ 5% (Bass boost must be left at minimum on the amp and 0 or flat on the head unit or processor)
10V ≥ Can not be used with this amplifier.

If your amplifier includes **Hi-Level (speaker wire) inputs** and you are using them for the audio signal connection, please use the below steps to adjust the amplifier. Start with a song with good bass that you know very well.

1. Use a screwdriver to turn GAIN (8V / 0.2V fully counter clockwise to 8V
2. Turn the auto sound system's volume control to about 3/4 of its full range. Any higher normally leads to the signal being distorted.
3. Turn up the amplifiers gain / level control unit the sound begins to distort, then immediately gain / level down to a point just before where the distortion began.
4. Adjust the auto sound system's volume control to a comfortable listening level and you are good to go.

NOTE: The steps to adjusting the gain / level control need to be repeated when you adjust any bass boost setting on the amplifier, processors or significantly on the head unit. Adjusting bass boost settings significantly without adjusting the gain / level can lead to a distorted signal and damage to the amp and speakers.

IMPORTANT NOTE: If you should have any questions concerning the installation or settings on your amplifier or are unsure of anything discussed in this manual, please contact our Technical Support department at 714.452.1476 for help. It is much better to take 5 minutes today to get it right then to adjust the settings incorrectly and have a problem with your amp or speakers.

SYMPTOMS	CHECK POINTS	CURE
NO SOUND	Is the power LED illuminated ? (NO)	Check fuses in amplifier. Be sure Turn-on lead is connected Check signal leads. Check gain control. Check Tuner/Deck volume level. Clean contacts on fuse holders.
	Is the Diagnostic LED illuminated ? (YES)	Check for speaker short or Amplifier overheating.
AMP NOT SWITCHING ON	No power to power wire	Repair power wire or connections.
	No power to remote wire with receiver on	Check connections to radio.
	Fuse broken	Replace fuse.
NO SOUND IN ONE CHANNEL	Check Speaker Leads	Inspect for short circuit or an open connection.
	Check Audio Leads	Reverse Left and Right RCA inputs to determine if it is occurring before the amp.
AMP TURNING OFF MEDIUM/HIGH VOLUME	Check speaker load impedance	Be sure proper speaker load impedance recommendations are observed. (If you use an ohmmeter to check speaker resistance, please remember that DC resistance and AC impedance may not be the same.)
STATUS LAMP ON	Temperature shut down	Turn radio down
	Speaker wires short	Separate speaker wires and insulate

Investigate the layout of your automobile thoroughly before drilling or cutting any holes. Take care when you work near gas tanks, gas lines, hydraulic lines, and electrical wiring. Do not use the power amplifier unmounted. Attach the system securely to the automobile to prevent damage, particularly in the event of an accident. Do not mount the system so that the wire connections are unprotected or are subject to pinching or damage from nearby objects.

The +12V DC power wire must be fused at the battery positive terminal connection. Before making or breaking power connections at the system power terminals, disconnect the +12V wire at the battery end. Confirm your radio/head unit and/or other equipment is turned off while connecting the input jacks and speaker terminals. If you need to replace the power fuse, replace it only with a fuse identical to that supplied with the system. Using a fuse of a different type or rating may result in damage to this system which is not covered by the warranty.

Disclaimer

Specifications are subject to change without notice.
For the most updated Specifications call Audiobahn,
your local Authorized Audiobahn Dealer,
or check the Audiobahn web site.
www.audiobahn.com

Audiobahn Consumer Product Warranty Policy

Audiobahn products are manufactured with the highest quality components and some of the most advanced technology available. Because of this we recommend that you have your new products installed by an **Authorized Audiobahn Dealer. (A list of Authorized Audiobahn Dealers can be found on our web page).**

Warranty Period: One year from the original date of purchase.

Warranty Coverage: This warranty covers manufacturer defects only. The warranty is applicable to the original purchaser, and is non-transferable. You must provide a receipt from an **Authorized Audiobahn Dealer** that shows the location of purchase, price paid, and date of purchase.

(Products purchased by consumers from an **Authorized Audiobahn Dealer** outside the United States are covered only by the Distributor of that specific country and are not covered by **Audiobahn**).

NOTES:
Complete subwoofer enclosures (**Audiobahn** will replace defective subwoofers, plexiglass, or neon only. Do not send the entire enclosure, unless the enclosure is defective itself. You must receive prior authorization and an RA# before sending in any complete enclosure).

AUDIOBAHN DOES NOT WARRANTY ANY PRODUCTS NOT PURCHASED THROUGH AN AUTHORIZED DEALER.
(A list of Authorized Audiobahn Dealers can be found on our web page).

AUDIOBAHN WARRANTIES DO NOT COVER THE FOLLOWING:

- Any product not purchased from an **Authorized Audiobahn Dealer** (including Internet dealers)
- Damage caused by abuse, misuse, accident, water / flood, or theft (including any cosmetic damage to the body of the product)
- Damage caused by improper installation
- Any cost or expense related to removal or reinstallation
- Any unauthorized services
- Any product that has the serial number removed, altered, or defaced
- Subsequent damage to any other components
- Pinched, cut, or stripped wires / terminals
- Any product that is new, and/or found to be in working condition
- L.E.D. indicators on electronics (**Audiobahn** will only replace L.E.D.(s) found to be defective at the time of purchase)

How to receive warranty service: Contact your local **Authorized Audiobahn Dealer**, or call **Audiobahn** at **(714) 452.1476** between the hours of 9:00AM and 5:00PM PST.

If you are having problems with your system, we recommend you check the product carefully and thoroughly to confirm that the product truly has a manufacturer defect; as opposed to abuse, or other components in the system caused the failure. This might include having an **Authorized Audiobahn Dealer** look at the product to confirm the source of the problem. Any product found to have a manufacturer defect will be replaced with a new piece of the same or similar model, or repaired at the discretion of **Audiobahn.** Any product found to have no manufacturer defect will be returned to the sender at their cost.

You must acquire a Return Authorization Number (#) prior to returning ANY product to Audiobahn. That Return Authorization Number (RA#) must be prominently and clearly marked on the outside of the shipping carton, or product delivery will be refused (no exceptions will be made).

Please note: All shipping and handling (to and from) charges will be the sole responsibility of the consumer.

Please record and keep your Return Authorization Number (RA#) in the event that further communication is required.

Return Authorization Number (RA#): _____

Date product was sent: _____

Contact Information

Audiobahn Headquarters
7050 Village Drive Bldg. G
Buena Park, CA 90621
Phone (714) 452.1476 Fax (888) 880.8469
Pacific Coast Time: 9am - 5pm Mon. - Fri.
tech@audiobahn.com

Audiobahn

7050 Village Drive, Bldg G
Buena Park, CA 90621

714-452-1476 office
888-880-8469 fax

info@audiobahn.com

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